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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,629	11/28/2000	Alex Truong	081862.P184	7864

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EXAMINER

EDELMAN, BRADLEY E

ART UNIT PAPER NUMBER

2153

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/724,629	<b>Applicant(s)</b> TRUONG ET AL.	
	<b>Examiner</b> Bradley Edelman	<b>Art Unit</b> 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 1-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office action is a first action on the merits of this application. Claims 1-24 are presented for examination.

#### ***Specification***

1. The disclosure is objected to because of the following informalities: page 3, line 2 contains a typographical or grammatical error ("is disclosed"); page 8, line 5 contains a typographical or grammatical error ("with applications using 460 using").

Appropriate correction is required.

#### ***Claim Objections***

2. Claims 1-24 are objected to under 37 CFR 1.75(a) because they do not distinctly claim the subject matter which Applicant regards as his invention.

All of the independent claims include a preamble describing "for controlling tasks performed on network cards." However the remainder of each of these claims fails to mention any steps regarding network cards, tasks, or controlling tasks on network cards. Therefore, the claims lack a sufficient nexus between the function claimed in the preamble and the steps claimed in the body.

The dependent claims depend from the independent claims, and include the same lack of nexus.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In considering claim 20, the phrase "synchronizing the primary and secondary controllers" on line 5 of the claim lacks antecedent basis and is therefore unclear.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 6, 12-14, and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Choi (U.S. Patent No. 6,457,056).

In considering claim 1, Choi discloses in a digital communications network, a method for controlling tasks performed on network cards comprising:

Controlling applications executed within the network (col. 4, lines 39-41, "main process card 100 having an upper application program, network interface cards 200,

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200' which are controlled by the main process card 100..."), wherein controlling the applications comprises:

Transitioning each of the applications between one of a plurality of active states and one of a plurality of standby states (col. 5, lines 7-12, describing the "preparing state" of the upper application layer; col. 5, lines 46-67, further describing "changing/writing a call process state on a self database," wherein the states include a "setup request" state, a "setup indication" state, an "alert request" state, and an "alert indication," in addition to a "calling state" and a "connecting indication" state, which constitute active and standby states).

In considering claim 2, Choi further discloses that an application state machine controls the execution of the application (col. 5, lines 17-19, "application program of the MPC 100 controls each call of the network interface card").

In considering claim 3, Choi further discloses receiving control messages from a shelf manager ("main process card 100"), and communicating via APIs to the application, wherein the shelf manager may be located on a remote network card (Fig. 4, showing that the MPC 100 may be remote, wherein an API is necessarily used to allow communication between the manager application and the application on the NIC.

In considering claim 6, Choi discloses in a digital communication network, a method for controlling tasks performed on network cards (col. 5, lines 48-64), comprising:

Switching the state of an application in an active state to a standby state, comprising,

Transitioning the application from the active state to a quiescent state (col. 5, lines 65-67; col. 6, lines 1-2, i.e. moving from a "connecting indication" state to a "request call release" state); and

Transitioning the application from the quiescent state to the standby state (col. 6, lines 1-13, i.e. moving from the "request call release" state to a "call is released" state).

In considering claim 12, claim 12 presents a system for performing the method described in claim 1, and is thus rejected for the same reasons.

In considering claim 13, claim 13 presents a system for performing the method described in claim 3, and is thus rejected for the same reasons.

In considering claim 14, claim 14 presents a system for performing the method described in claim 6, and is thus rejected for the same reasons.

In considering claim 17, claim 17 presents a computer readable medium for performing the method described in claim 1, and is thus rejected for the same reasons.

In considering claim 18, claim 18 presents a computer readable medium for performing the method described in claim 3, and is thus rejected for the same reasons.

In considering claim 19, claim 19 presents a computer readable medium for performing the method described in claim 6, and is thus rejected for the same reasons.

5. Claims 1-2, 4-12, 14-17, and 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Muller et al. (U.S. Patent No. 6,650,640, hereinafter "Muller").

In considering claim 1, Muller discloses in a digital communications network, a method for controlling tasks performed on network cards ("NICs") comprising:

Controlling applications executed within the network (col. 11, lines 23-25, wherein the applications are receiving packets and transferring packets), wherein controlling the applications comprises:

Transitioning each of the applications between one of a plurality of active states and one of a plurality of standby states (col. 11, lines 23-67; col. 17, lines 54-63, describing various active and standby states – i.e. extraction state 136 and wait state 400).

In considering claim 2, Muller further discloses that an application state machine controls the execution of the application (cols. 11-12, wherein a state machine necessarily controls the application which is transitioning through various states).



In considering claim 4, Muller further discloses that the plurality of active states comprise an active ready state ("state 132" in which a packet is received), a quiescent state ("state 136" in which the packet does not move, but is merely analyzed), and a no provisioning state ("state 142" in which no provisioning occurs).

In considering claim 5, Muller further discloses that the standby states comprise:

A standby ready state ("wait state"); and

A standby locked state ("state 430," col. 18, lines 56-67, wherein if the packet does not match the desired criteria, it is not actively processed and the process ends).

In considering claim 6, Muller discloses in a digital communication network, a method for controlling tasks performed on network cards ("NICs," col. 11, lines 23-26), comprising:

Switching the state of an application in an active state to a standby state, comprising,

Transitioning the application from the active state to a quiescent state (col. 11, lines 27-59, wherein the application transitions from "state 132" in which a packet is actively received, to "state 136," wherein the packet does not move but is merely analyzed); and

Transitioning the application from the quiescent state to the standby state (col. 17, lines 54-63, in which the card returns to the "wait state" when packets are not being

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processed, and thus transitions from the "state 136" described above to the "wait state" after the packet is fully processed).

In considering claim 7, Muller discloses in a digital communication network, a method for controlling tasks performed on network cards ("NICs," col. 11, lines 23-26), comprising:

Switching the state of an application in an active state to a standby locked state, comprising,

Transitioning the application from the active state to a no-provisioning state (col. 11, lines 27-59; col. 12, lines 15-18, wherein the application transitions from "state 132" in which a packet is actively received, to "state 142" in which no provisioning occurs;

Transitioning the application from the no provisioning state to a quiescent state (col. 12, lines 15-18-27, wherein the application transitions from "state 142" to "state 144," wherein the packet is still not transferred to the host memory, and thus is quiescent); and

Transitioning the application from the quiescent state to the standby locked state (col. 17, lines 54-63, in which the card returns to the "wait state" when packets are not being processed, and thus transitions from the "state 144" described above to the "wait state" after the packet is fully processed).

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In considering claim 8, Muller further discloses that the standby locked state does not allow disk database access nor access to write to RAM (i.e. the "idle" or "wait" state only allows the card to listen for packets).

In considering claim 9, Muller further discloses that the no provisioning state does not allow access to write to a disk database (i.e. "state 142" only waits and does not allow writing to a database).

In considering claim 10, Muller further discloses that the quiescent state does not allow access to write to a disk database nor access to write to RAM (i.e. "state 144" only determines if the packet will soon be transferred, and does not allow write access to a database or RAM).

In considering claim 11, Muller discloses in a digital communications network, a method for controlling tasks performed on network cards ("NICs"), comprising:

Upgrading code of an application in a standby state to an active state, comprising:

Transitioning the application from the standby state to a no provisioning state (col. 17, lines 54-63; col. 12, lines 10-20, i.e. from the "wait state" to "state 142" in which no provisioning occurs); and

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Transitioning the application from the no provisioning state to the active state (col. 12, lines 20-31, wherein the application transitions from "state 142" to "state 146" in which the packet is transferred).

In considering claim 12, claim 12 presents a system for performing the method described in claim 1, and is thus rejected for the same reasons.

In considering claim 14, claim 14 presents a system for performing the method described in claim 6, and is thus rejected for the same reasons.

In considering claim 15, claim 15 presents a system for performing the method described in claim 7, and is thus rejected for the same reasons.

In considering claim 16, claim 16 presents a system for performing the method described in claim 11, and is thus rejected for the same reasons.

In considering claim 17, claim 17 presents a computer readable medium for performing the method described in claim 1, and is thus rejected for the same reasons.

In considering claim 19, claim 19 presents a computer readable medium for performing the method described in claim 6, and is thus rejected for the same reasons.

In considering claim 20, claim 20 presents a computer readable medium for performing the method described in claim 7, and is thus rejected for the same reasons.

Examiner has interpreted the limitation of "synchronizing the primary and secondary controllers" as meaning "synchronizing a system on which the instructions execute." Such synchronizing is necessary in any computer system to allow communication between processes, and therefore would necessarily be included in the system taught by Muller.

In considering claim 21, claim 21 presents a computer readable medium for performing the method described in claim 11, and is thus rejected for the same reasons.

In considering claim 22, Muller discloses in a digital communications network, a system for controlling tasks performed on network cards ("NICs," col. 11, lines 23-26) comprising:

A CPU subsystem ("CPU," col. 53, lines 8-24);

One or more input/output ports connected to the CPU subsystem for communicating with the network ("Input port processing module 104," Fig. 1); and

Special hardware connected to the CPU subsystem via a bus ("PCI bus," col. 50, lines 15-23), wherein the CPU subsystem controls applications executed within the network (col. 11, lines 23-26, wherein the NIC is ultimately controlled by the host CPU).

In considering claim 23, Muller further discloses a disk database ("flow database 110," on the NIC, col. 8, lines 50-60) connected to the CPU system via a PCI bus (col. 50, lines 18-20, "NIC 100 is coupled to the host computer by a PCI bus").

In considering claim 24, Muller further discloses that the CPU subsystem comprises:

A central processing unit ("CPU");

A system controller connected to the central processing unit ("control queue 118," col. 52, lines 43-67; Fig. 1);

Random access memory ("random access memory") connected to the system controller (col. 52, lines 43-50); and

An application state machine for transitioning applications between one of a plurality of active states and one of a plurality of standby states (col. 11, lines 23-67; col. 17, lines 54-63, describing various active and standby states – i.e. extraction state 136 and wait state 400)

6. Claim 22 is rejected under 35 U.S.C. 102(e) as being anticipated by Chiles et al. (U.S. Patent No. 6,363,423, hereinafter "Chiles").

In considering claim 22, Chiles discloses in a digital communications network, a system for controlling tasks (i.e. "address updates") performed on network cards comprising:

A CPU subsystem (col. 4, lines 38-50, "processing unit");

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One or more input/output ports connected to the CPU subsystem for communicating with the network (col. 4, line 45, "input/output system"); and

Special hardware connected to the CPU subsystem via a bus ("bus system 20," col. 4, lines 57-58), wherein the CPU subsystem controls applications executed within the network (col. 4, lines 38-65, wherein the "software drivers" control the applications).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is 703-306-3041. The examiner can normally be reached from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 703-305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Bradley Edelman*

BE

August 17, 2004